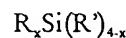


CLAIMS:

- 1 1. A composition comprising:
  - 2 a) a white pigment or extended white pigment surface treated with a silane
  - 3 having at least one functional group capable of reacting with acids and
  - 4 anhydrides;
  - 5 b) at least one polymeric material; and
  - 6 c) a compatibilizer.

- 1 2. The composition of Claim 1 wherein said silane has the following general
- 2 formula:



4 wherein

5 R is a nonhydrolyzable functional group directly or indirectly bonded

6 to the silicon atom selected from the group consisting of epoxy, isocyanato,

7 mercapto, and mixtures thereof;

8 R' is a hydrolyzable group selected from the group consisting of alkoxy,

9 halogen, acetoxy or hydroxy or mixtures thereof; and

10 x = 1 to 3.

- 1 3. The composition of Claim 1 wherein said pigment is  $TiO_2$ .

- 1 4. The composition of Claim 1 wherein said extended white pigment is selected
- 2 from clays, inorganic metal compounds and siliceous materials.

3

- 1 5. The composition of Claim 1 wherein said compatibilizer comprises copolymers
- 2 of ethylene or propylene with anhydride or acid groups which are capable of
- 3 reacting with the functional groups of the at least one polymeric material.

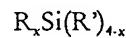
- 1    6.    The composition of Claim 1 wherein said compatibilizer comprises copolymers  
2       selected from the group consisting of ethylene maleic anhydride copolymers,  
3       ethylene (meth)acrylic acid copolymers, propylene maleic anhydride  
4       copolymers, propylene acrylic acid copolymers, ethylene propylene  
5       copolymers with maleic anhydride or acid functional groups, and olefinic  
6       ionomer resins.
  
- 1    7.    The composition of Claim 1 wherein said compatibilizer is present at a  
2       concentration of about 0.5wt.% to about 20wt.% based on a total weight of the  
3       composition.
  
- 1    8.    The composition of Claim 1 wherein said compatibilizer is present at a  
2       concentration of about 1% to about 10% by weight of the total composition.
  
- 1    9.    The composition of Claim 1 wherein said filler or pigment is present at a  
2       concentration of about 40wt.% to about 85wt.% based on a total weight of the  
3       composition.
  
- 1    10.   The composition of Claim 1 further comprising at least one lubricant selected  
2       from the group consisting of polysiloxanes, silicone fluids, stearates, paraffinic  
3       oils, fluorocarbon fluids, and mixtures thereof.
  
- 1    11.   The composition of Claim 10 wherein said lubricant is a polysiloxane selected  
2       from the group consisting of polydimethylsiloxane and organomodified  
3       polydimethylsiloxane.  
4
  
- 1    12.   The composition of Claim 13 wherein said lubricant is present from about  
2       0.05wt.% to about 5wt.% based on a total weight of the composition.

- 1 13. The composition of Claim 1 wherein said silane is present on the surface of said
- 2 pigment or extended white pigment in an amount of about 0.1wt.% to about
- 3 5wt.% based on a weight of said pigment or extended white pigment.
  
- 1 14. The composition of Claim 1 wherein said polymeric material is selected from
- 2 the group consisting of olefins and alphaolefins and their copolymers and
- 3 terpolymers, rubbery block copolymers, polyamides, polyesters, vinylic
- 4 polymers, acrylics, epoxies, ionomeric resins, and mixtures thereof.
  
- 1 15. The composition of Claim 14 wherein said polymeric material is selected from
- 2 the group consisting of polyethylene, ethylene copolymers, polypropylene,
- 3 propylene copolymers, and mixtures thereof.
  
- 1 16. A white pigment surface treated with at least one silane capable of reacting with
- 2 acids and anhydrides and having the following general structure:
- 3 
$$R_xSi(R')_{4-x}$$
- 4 wherein
- 5 R is a nonhydrolyzable functional group directly or indirectly bonded
- 6 to the silicon atom selected from the group consisting of epoxy, isocyanato,
- 7 mercapto, and mixtures thereof;
- 8 R' is a hydrolyzable group selected from the group consisting of alkoxy,
- 9 halogen, acetoxy or hydroxy or mixtures thereof; and
- 10 
$$x = 1 \text{ to } 3.$$
  
- 1 17. The white pigment of Claim 16 wherein said white pigment is selected from
- 2 the group consisting of clays, inorganic metal compounds and siliceous
- 3 materials.

1 18. The white pigment of Claim 16 wherein said white pigment is selected from  
2 the group aluminum trihydroxide, magnesium hydroxide, calcined clay,  
3 nanoclay, kaolin clay, oxidized brass, oxidized aluminum, oxidized steel,  
4 alumina, aluminum trihydrate, fumed silica, precipitated silica, silica aerogels,  
5 silica xerogels, aluminum silicates, calcium magnesium silicates, asbestos,  
6 molecular sieves, Wallastonite, calcium carbonate, titanium dioxide, calcium  
7 sulphate, magnesium sulfate, calcium carbonates having a silica coating, calcium  
8 carbonates agglomerated to silica, and mixtures thereof.

1 19. The white pigment of Claim 16 wherein said white pigment is  $TiO_2$ .

1 20. A white pigment or extended white pigment having enhanced processability  
2 and dispersion in polymeric material surface treated with a silane having a  
3 structure of:



5 wherein

6 R is a nonhydrolyzable functional group directly or indirectly bonded  
7 to the silicon atom selected from the group consisting of epoxy, isocyanato,  
8 mercapto, and mixtures thereof;

9 R' is a hydrolyzable group selected from the group consisting of alkoxy,  
10 halogen, acetoxy or hydroxy or mixtures thereof; and

11 x = 1 to 3; and

12 a polysiloxane having a structure of:



14 wherein

15 R'' is an organic or an inorganic group;

16 n is 0 to 3; and

17 m is equal to or greater than 2.